

# **U.S. Implementation of Basel II.5, Basel III, and Harmonization with the Dodd-Frank Act**

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## Summary

The Basel III Capital Accord, which was produced by the Basel Committee on Banking Supervision at the Bank for International Settlements, is the latest in a series of evolving agreements among central banks and bank supervisory authorities from around the world to establish minimum capital requirements for financial institutions. Capital serves as a cushion against sudden financial shocks (such as an unusually high occurrence of loan defaults), which can otherwise lead to insolvency. The Basel III regulatory reform package revises the definition of regulatory capital and increases the amount that must be held by banking organizations. Basel III also recommends holding more assets that can easily be converted to cash to shield against temporary decreases in liquidity. The quantitative requirements and phase-in schedules for Basel III were approved by the 27-member jurisdictions and 44 central banks and supervisory authorities on September 12, 2010, and endorsed by the G20 leaders on November 12, 2010. Basel III requires banks to satisfy all of these enhanced requirements by 2019.

In the United States, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act; P.L. 111-203) also addressed capital reserve requirements for banks. The Collins Amendment of the Dodd-Frank Act amends the definition of capital; establishes minimum capital and leverage requirements for banking subsidiaries, bank holding companies, and systemically important non-bank financial companies; and establishes an implementation timeline that is shorter than the timeline agreed to in the Basel III Accord. In addition, Dodd-Frank removes the requirement that credit ratings be referenced when evaluating the creditworthiness of financial securities. In other words, bank regulators (e.g., the Federal Reserve, the Office of the Comptroller of the Currency, and the Federal Deposit Insurance Corporation) are required to find other appropriate standards by which to determine the financial risks of bank portfolio holdings while enforcing the mandatory capital requirements. Regulators face challenges in their attempt to establish credit rating alternatives, which may delay the implementation of Basel III in the United States. Bank lending decisions and strategies, therefore, may also be delayed in anticipation of higher capital reserve requirements stemming from implementation of Basel III and the Dodd-Frank Act. Bankers may prefer knowing how much more capital they would need to hold before greatly expanding their lending portfolios with longer-term assets.

This report discusses how the Basel Capital Accord framework has been modified as well as subsequent implementation issues in the United States. The report explains how the Basel Committee on Banking Supervision incorporates credit ratings into the regulatory framework whereas the Dodd-Frank Act eliminates references to credit ratings in federal financial regulation, and how this may complicate the adoption of subsequent phases of the Basel framework, namely Basel II.5 and Basel III. The regulators issued a proposed rule in December 2011 for implementing Basel II.5, which may help to inform the future contours of Basel III implementation in the United States. The report also summarizes the enhanced capital and liquidity requirements associated with Basel III, related provisions in the Dodd-Frank Act, and some remaining implementation concerns.

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## Introduction

Lending is inherently risky. Bank assets, which typically include loans made to borrowers, are risky because borrowers can default on their loans. In addition, banks face *funding risk* because they must continuously borrow short-term liquidity to *fund* their assets (customer loans).<sup>1</sup> In other words, banks provide longer-term (illiquid) customer loans by borrowing the funds via sequences of shorter-term (liquid) loans at relatively lower rates.<sup>2</sup> Profits are generated from the spread between the long-term rates lenders charge and the successive sequences of shorter-term rates they pay for liquidity until the longer-term loans are repaid in full. If borrowers default on their loans from the lender, the lender potentially could default on repayment of its liabilities, which are the shorter-term loan obligations to depositors and other financial institutions.

A bank's capital is defined as the difference between its assets and liabilities. If a bank maintains sufficient capital, a default on one of its assets is less likely to translate into a subsequent failure to repay some of its shorter-term obligations. A capital buffer, therefore, protects bank creditors from loan defaults by bank customers. A bank is considered solvent as long as it maintains capital above a minimum threshold level, and it is considered undercapitalized and faces the prospect of being shut down by its regulator should its capitalization fall below the threshold. A bank's asset or lending portfolio may grow proportionately with its capital reserves, and guidelines for this proportion have been established by the Basel Committee on Banking Supervision (BCBS).<sup>3</sup>

The BCBS's work on the first Basel Capital Accord, Basel I, provided the international consensus framework for bank safety and soundness regulation. The objective of the first Basel Capital Accord was to promote consistent safety and soundness standards while providing an equitable basis of competition for banking institutions in participating countries.<sup>4</sup> In other words, banks may face a competitive disadvantage with competitors in other countries unless capital reserve requirements are internationally harmonized. Basel I established the amount of capital relative to assets, expressed as a capital-to-asset ratio, that financial institutions needed to maintain. Capital-asset ratios are generally computed using the total amount of capital in the numerator and the total amount of *risk-weighted* assets in the denominator.<sup>5</sup> The U.S. banking system currently operates under a safety and soundness framework based upon the first Basel Accord, which was adopted by the banking regulatory agencies in 1988.<sup>6</sup>

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<sup>1</sup> Bank assets, which tend to consist primarily of long-term customer loans, may also consist of cash and other financial securities.

<sup>2</sup> Such short-term borrowing may occur in the form of paying interest on customer deposits or repaying loans obtained in the short-term money markets. The short-term money markets consist of repurchase agreements, commercial paper, and the international short-term market known as the London Interbank Offering Rate (LIBOR) market. U.S. banks may also acquire short-term loans by going to the federal funds market or borrowing from the Federal Home Loan Bank System.

<sup>3</sup> The name, Basel Accord, comes from Basel, Switzerland, the home of the Bank for International Settlements (BIS). In 1974, the BIS established the Basel Committee on Banking Supervision (BCBS), made up of representatives from the monetary authorities of 13 countries—Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom, and the United States—to determine and mitigate bank risk in light of different national systems of supervision and deposit insurance.

<sup>4</sup> See Roger W. Ferguson, Jr., "Capital Standards for Banks: The Evolving Basel Accord," *Federal Reserve Bulletin*, September 2003, pp. 395-405.

<sup>5</sup> The system for the risk weighting of assets is discussed in more detail in the next section.

<sup>6</sup> The first Basel Capital Accord was published in July 1988 and fully implemented in the United States by the end of 1992. Basel I was implicitly endorsed in the Federal Deposit Insurance Corporation Improvement Act of 1991 (P.L. 102-242, 105 Stat. 2236; FDICIA). See William R. Keeton, "The New Risk-Based Capital Plan For Commercial

The second Basel Accord, Basel II, attempts to improve upon the methodology for capturing credit risk, which is explained in the next section. In the United States, the federal banking regulatory agencies placed large “core” banks under the Basel II framework.<sup>7</sup> Core banks are banking organizations with at least \$250 billion of consolidated total assets or at least \$10 billion of on-balance-sheet risk associated with foreign asset holdings.<sup>8</sup> Core banks are also required to use the most advanced approaches of the Basel II framework to determine their credit risks. The general “non-core” banks may continue to use Basel I or the “general risk-based” capital rules to determine the optimal levels of capital to hold.<sup>9</sup> On December 7, 2007, the federal banking regulators published the final regulations for implementing Basel II for core banks that became effective on April 1, 2008.<sup>10</sup>

In response to the 2007-2009 global financial crisis,<sup>11</sup> the BCBS issued what is referred to as Basel II.5 as an amendment to Basel II, which increases the requirements on banks’ models for evaluating financial risk and requires greater disclosures on banks’ securitization activities.<sup>12</sup> The banking regulators issued proposed rules on the adoption of Basel II.5 revisions in the United States on January 11, 2011,<sup>13</sup> which were amended and re-proposed on December 7, 2011.<sup>14</sup>

In a further response to the financial crisis, the Basel III reform package revises the definition of regulatory capital and increases the amount that banks must hold. Basel III also would require banks to hold a greater percentage of their assets in cash or in assets that can easily be converted to cash. The quantitative requirements and phase-in schedules for Basel III were approved by the 27-member jurisdictions and 44 central banks and supervisory authorities on September 12, 2010. Basel III requires banks to satisfy all of these enhanced requirements by 2019. Formal

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Banks,” *Economic Review*, Federal Reserve Bank of Kansas City, December 1989, pp. 40-60 at <http://www.kc.frb.org/publicat/econrev/EconRevArchive/1989/4q89keet.pdf>.

<sup>7</sup> Basel II was initially applied to only the 19 largest banking institutions. For more information on the definition of the Large Complex Banking Organizations, see Lisa M. DeFerrari and David E. Palmer, “Supervision of Large Complex Banking Organizations,” *Federal Reserve Bulletin*, February 2011, pp. 47-57 at <http://www.federalreserve.gov/pubs/bulletin/2001/0201lead.pdf>.

<sup>8</sup> Office of the Comptroller of the Currency, Treasury; Board of Governors of the Federal Reserve System; Federal Deposit Insurance Corporation; and Office of Thrift Supervision, Treasury, “Risk-Based Capital Standard: Advanced Capital Adequacy Framework—Basel II,” 71 *Federal Register* 185, September 26, 2006.

<sup>9</sup> For a discussion concerning why more non-core banks may want to adopt the risk weighting system under Basel II, see William R. Emmons, Vahe Lskavyan, and Timothy J. Yeager, “Basel II Will Trickle Down to Community Bankers, Consumers,” *The Regional Economist*, Federal Reserve Bank of St. Louis, April 2005, <http://www.stlouisfed.org/publications/re/articles/?id=363>.

<sup>10</sup> Office of the Comptroller of the Currency, Treasury; Board of Governors of the Federal Reserve System; Federal Deposit Insurance Corporation; and Office of Thrift Supervision, Treasury, “Risk-Based Capital Standard: Advanced Capital Adequacy Framework—Basel II,” 72 *Federal Register* 235, December 7, 2007.

<sup>11</sup> See CRS Report R40007, *Financial Market Turmoil and U.S. Macroeconomic Performance*, by Craig K. Elwell.

<sup>12</sup> The two documents are collectively known as Basel II.5 or “the 2009 revisions” are Basel Committee on Banking Supervision, *Revisions to the Basel II Market Risk Framework*, March 2009, <http://www.bis.org/publ/bcbs148.pdf> and Basel Committee on Bank Supervision, *Guidelines for Computing Capital for Incremental Risk in the Trading Book*, <http://www.bis.org/publ/bcbs149.pdf>.

<sup>13</sup> See Office of the Comptroller of the Currency, Treasury; Board of Governors of the Federal Reserve; and Federal Deposit Insurance Corporation, “Risk-Based Capital Guidelines: Market Risk,” 76 *Federal Register*, January 11, 2011 at <http://www.gpo.gov/fdsys/pkg/FR-2011-01-11/pdf/2010-32189.pdf>.

<sup>14</sup> See Office of the Comptroller of the Currency, Treasury; Board of Governors of the Federal Reserve; Federal Deposit Insurance Corporation, “Risk-Based Capital Guidelines: Market Risk; Alternatives to Credit Ratings for Debt and Securitization Positions,” December 7, 2011 at <http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20111207a1.pdf>.

implementation of Basel III has not yet begun in the United States; however, a new proposed rule for the adoption of Basel III may be issued in 2012.<sup>15</sup>

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act; P.L. 111-203) also addressed capital reserve requirements for banks. The Collins Amendment of the Dodd-Frank Act amends the definition of capital, establishes minimum capital and leverage requirements, and establishes an implementation timeline that is faster than what was agreed to in the Basel III Accord. In addition, Dodd-Frank removes the requirement that credit ratings be referenced when evaluating the creditworthiness of financial securities.<sup>16</sup> Regulators are required to find other appropriate standards by which to determine the financial risks of bank portfolio holdings while enforcing the mandatory capital requirements. This statutory requirement can potentially complicate implementation of Basel II.5 and Basel III in the United States. Implementation delays may also delay bank lending decisions and strategies. Bankers are likely to reconsider the size and composition of their longer-term asset portfolios in response to the new capital requirements once implementation of the rules is finalized.

This report discusses how the Basel Capital Accord framework has been modified to improve the methodology used to capture credit risk, and analyzes selected implementation issues in the United States. The next section explains how the BCBS incorporates credit ratings into the regulatory framework whereas the Dodd-Frank Act eliminates any references to credit ratings in federal financial regulation, and how this may complicate the adoption of Basel II.5 and Basel III. The report also summarizes the enhanced capital and liquidity requirements associated with Basel III and compares them to related provisions in the Dodd-Frank Act. Safety and soundness provisions of the Dodd-Frank Act that apply specifically to systemically important firms, such as a systemic risk tax and stress-testing, are not addressed in this report.<sup>17</sup>

## **Asset Risk-Weighting and Credit Ratings**

Basel I introduced a risk-weighting system that weights (multiplies) the assets in the denominator of the capital-asset ratio by a factor that attempts to capture the relative credit or default risk of bank assets.<sup>18</sup> In the United States, bank assets are assigned into four categories (buckets) that receive weights of 0%, 20%, 50%, and 100%, respectively.<sup>19</sup> The risk weighting system arguably equates lower credit risk with liquidity given that it typically assigns lower weights to more liquid assets and higher weights to less liquid assets. For example, cash and U.S. Treasury securities, which are liquid and considered to have zero default risk, receive a risk weight of 0%. These asset holdings would have no effect on a bank's portfolio capital-asset ratio. On the other hand, a loan secured by residential property receives a risk weight of 50%, and a commercial loan receives a risk weight of 100%. Loans with higher risk weights reduce the overall portfolio capital-asset

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<sup>15</sup> See Federal Reserve Governor Daniel K. Tarullo, *The Evolution of Capital Regulation*, Board of Governors of the Federal Reserve, Speech at the Clearing House Business Meeting and Conference, New York, NY, November 9, 2011, <http://www.federalreserve.gov/newsevents/speech/tarullo20111109a.htm#fn1>.

<sup>16</sup> See <http://www.sec.gov/news/press/2011/2011-59.htm>.

<sup>17</sup> For more information on these topics, see CRS Report R41384, *The Dodd-Frank Wall Street Reform and Consumer Protection Act: Systemic Risk and the Federal Reserve*, by Marc Labonte.

<sup>18</sup> See "Minimum Capital Requirements" at <http://www.bis.org/publ/bcbs128b.pdf>; "Risk Weighting Assets" at [http://www.fdic.gov/regulations/resources/directors\\_college/sfcb/capital.pdf](http://www.fdic.gov/regulations/resources/directors_college/sfcb/capital.pdf) or [http://www.ots.treas.gov/\\_files/422020.pdf](http://www.ots.treas.gov/_files/422020.pdf).

<sup>19</sup> See Roger W. Ferguson, Jr., "Capital Standards for Banks: The Evolving Basel Accord," *Federal Reserve Bulletin*, September 2003, pp. 395-405.



ratio. In addition, a bank holding a loan that is assigned 100% risk weight would be required to hold 8% of the value of that asset as capital. Should a bank decide to hold less cash and increase its holdings of higher yielding, less liquid loans, then its capital reserves must also increase for its capital-asset ratio to remain intact. Conversely, when capital-asset ratios are low, academic research has found that some banks will substitute toward low risk-weighted asset categories to restore the ratio.<sup>20</sup> The composition of a bank's asset portfolio, therefore, may be influenced by the risk weights assigned to the assets.

The weighting system arguably does not sufficiently differentiate among the degrees of risk. To illustrate, Basel I places the same capital charge on all commercial loans regardless of the differences in credit (default) risk. In other words, both high and low credit quality commercial loans receive the same 8% capital charge. Furthermore, the weighting system is unable to capture offsetting risk exposures. The capital surcharge is the same even though holding the loan with lower default risk may compensate for holding the higher risk loan. Hence, banks arguably have the incentive to hold lower quality loans, which makes it possible for institutions to still be undercapitalized given their default risk exposures.

Another concern regarding the weighting system is that it may encourage banks to hold government securities such as U.S. Treasuries rather than extend loans where more severe credit shortages may exist. The government securities of nations that are members of the Organisation for Economic Co-operation and Development (OECD) receive a risk weight of 0%. Suppose capital-asset ratios fall below regulatory threshold levels during recessions after an increase in borrower loan defaults. If banks, as discussed earlier, previously had the incentive to hold lower quality loans during an expansionary economic period, they may decide to hold more OECD country sovereign debt rather than make new loans during recessionary periods to keep capital-asset ratios in compliance. These actions may further curtail lending to segments where more severe credit shortages may exist, such as in non-OECD emerging market economies or in the private sector when entering the recovery phase of a business cycle.<sup>21</sup> Hence, the Basel I weighting system results in "procyclical" capital requirements, which means they may incentivize excessive risk taking during expansions and impede economic recovery during an economic downturn.<sup>22</sup> Furthermore, a bank's risk exposure may still be *understated* should the default risk of OECD securities increase.<sup>23</sup>

## BCBS Enhancements: Basel II, Basel II.5, and Credit Ratings

Basel II was developed in response to perceived shortcomings in the asset risk-weighting system and other concerns.<sup>24</sup> Basel II has three components known as Pillars. The methodology for

<sup>20</sup> See Patricia Jackson, coordinator, *Capital Requirements and Bank Behaviour: The Impact of the Basle Accord*, Bank for International Settlements, Basle Committee on Banking Supervision Working Papers, Basle, Switzerland, April 1999, pp. 1-59, [http://www.bis.org/publ/bcbs\\_wp1.pdf](http://www.bis.org/publ/bcbs_wp1.pdf).

<sup>21</sup> See Bryan J. Balin, *Basel I, Basel II, and Emerging Markets: A Nontechnical Analysis*, The Johns Hopkins University School of Advanced International Studies, Washington, DC, May 2008, <http://www.policyarchive.org/handle/10207/bitstreams/11484.pdf>. For more information about OECD, see [http://www.oecd.org/home/0,2987,en\\_2649\\_201185\\_1\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/home/0,2987,en_2649_201185_1_1_1_1_1,00.html).

<sup>22</sup> Jose L. Fillat and Judit Montoriol-Garriga, *Addressing the Pro-cyclicality of Capital Requirements with a Dynamic Loan Loss Provision System*, Federal Reserve Bank of Boston, Working Paper No. QAU10-4, September 15, 2010, <http://www.bostonfed.org/bankinfo/qau/wp/2010/qau1004.pdf>.

<sup>23</sup> See CRS Report R41167, *Greece's Debt Crisis: Overview, Policy Responses, and Implications*, coordinated by Rebecca M. Nelson and CRS Report R41955, *Standard & Poor's Downgrade of U.S. Government Long-Term Debt*, by Mark Jickling.

<sup>24</sup> See Secretariat of the Basel Committee on Banking Supervision, *The New Basel Capital Accord: An Explanatory*

calculating the minimum capital requirements for banks is explained in the first pillar. The weighting system was revised to allow for more risk differentiation. Basel II added more risk weight categories and also proposed the use of external credit assessments or ratings to support the determination of the appropriate risk weight assignment.<sup>25</sup> For example, suppose a Nationally Recognized Statistical Rating Organization (NRSRO) gave its highest investment grade rating to a security that still receives a 100% risk weight under Basel I. The highly rated security could receive a 20% risk weight under Basel II, which arguably better reflects the high credit quality. A residential mortgage that would have received a 50% risk weight under Basel I could receive a higher risk weight if the borrower made a very low downpayment (or high loan-to-value ratio). Second or junior mortgage liens receive higher risk weights than primary mortgage liens. The use of mortgage insurance or other financial insurance such as credit default swaps to mitigate credit risk on a riskier loans may reduce the risk weights assigned to such loans.

Given that any risk-weighting system may generate unintended outcomes, pillars two and three of Basel II were added to monitor the rise of misaligned incentives that could stem from pillar one requirements. The second pillar requires banks to maintain management mechanisms to conduct ongoing internal self-evaluation of their risk exposures and compliance with the minimum regulatory capital requirement. The third pillar facilitates market discipline and reporting. Specifically, pillar three addresses problems with operational risks, which include internal operation failures, such as poor accounting, legal and compliance failures, poor and fraudulent managers and traders, and security failures.

BCBS issued Basel II.5 (as a supplement to Basel II) to better capture credit risk in the “trading book” of a bank. The trading book refers to securities that a bank would *not* hold to maturity and would be accounted for at current market value. A security held to maturity is accounted for in the “banking book” at its original book values unless the bank decides to sell it, and then it moves over to the trading book where it is given fair market value accounting treatment. Distinguishing between assets that should be held in the trading and banking books is not always easy, which makes it difficult to determine the proper accounting and risk weighting treatment.<sup>26</sup> Nonetheless, Basel II.5 attempts to prevent regulatory arbitrage or the placement of securities in the book that would provide the most favorable accounting treatment of securities at a particular point in time while resulting in an insufficient capital buffer.

## **Proposed Basel II.5 Implementation Under Section 939A of the Dodd-Frank Act**

As previously stated, federal regulators jointly issued a notification of proposed regulation (NPR) for the implementation of Basel II.5 on January 11, 2011, and again on December 7, 2011.<sup>27</sup> The January NPR asked for comments on the revisions made by the BCBS, particularly with respect to procyclicality concerns as well as other shortcomings involving the capturing of risk, but it did

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*Note*, Bank for International Settlements, Basel, Switzerland, January 2001, <http://www.bis.org/publ/bcbsca01.pdf>.

<sup>25</sup> See *Part 2: The First Pillar—Minimum Capital Requirements*, Bank for International Settlements, <http://www.bis.org/publ/bcbs128b.pdf>.

<sup>26</sup> See Basel Committee on Banking Supervision, *Trading Book Survey: A Summary of Responses*, April 2005, <http://www.bis.org/publ/bcbs112.pdf>.

<sup>27</sup> See “Proposed Rules for Risk-Based Capital Guidelines: Market Risk,” *Federal Register*, January 11, 2011, p. 1890 at <http://www.occ.gov/news-issuances/federal-register/76fr1890.pdf>; and “Risk-Based Capital Guidelines: Market Risk; Alternatives to Credit Ratings for Debt and Securitization Positions,” *Federal Register*, December 21, 2011, p. 79380, <http://www.gpo.gov/fdsys/pkg/FR-2011-12-21/pdf/2011-32073.pdf>.



not include methodologies for calculating the specific risk capital requirements for various debt and securitization positions. The December NPR, which amended the January NPR to conform with Section 939A of the Dodd-Frank Act, promulgated a series of alternative approaches for risk-weighting various bank traded debt and securitization positions. The comment period for the December NPR ended on February 3, 2012.

Section 939 of the Dodd-Frank Act requires the repeal of several statutory provisions that make reference to credit ratings. Given the viewpoint that flawed credit ratings may have contributed to the housing bubble, the Dodd-Frank Act reduced “over-reliance on ratings and [to] encourage[s] investors to conduct their own analysis.”<sup>28</sup> Section 939A requires each federal agency to review regulations that would require the use of an assessment of the creditworthiness of a security or money market instrument, and any references to, or requirements in, those regulations regarding credit ratings within one year of enactment (by July 21, 2011). Each agency is then required to modify all regulations such that any reference to or requirement for reliance on credit ratings are removed. The agencies may substitute alternative standards of creditworthiness that are determined to be appropriate and also transmit reports to Congress that contain descriptions of all regulatory modifications made pursuant to the section.<sup>29</sup>

In light of Section 939A, implementation of Basel II.5 and Basel III poses challenges for U.S. regulators. Although Basel III addresses excessive reliance on external credit ratings for exposure to default risk by requiring banks to conduct some due diligence on counterparties, it is still the case that credit rating references have been adopted in the framework. Section 939A, therefore, may prevent U.S. bank regulators from adopting salient Basel II.5 and Basel III provisions that contain references to credit ratings.<sup>30</sup> Hence, the U.S. banking regulators may have difficulty implementing safety and soundness standards that would be internationally consistent.

In contrast to the four risk categories established under Basel I, the December NPR proposed the assignment of a specific range of risk weights to various types of asset holdings (or exposures) based upon the following seven categories of issuers (of financial securities):

- sovereign entities (i.e., a central government or an agency, department, ministry, or a central bank of a central government);
- certain multilateral development banks (the December NPR provides a listing) and supranational entities (i.e., the Bank for International Settlements, the European Central Bank, the European Commission, the International Monetary Fund);
- government-sponsored entities (i.e., the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Farm Credit System, the Federal Home Loan Bank System);
- depository institutions, foreign banks, and credit unions;

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<sup>28</sup> See U.S. Congress, Senate Committee on Banking, Housing, and Urban Affairs, *Dodd-Frank Wall Street Reform: Conference Report Summary*, 111<sup>th</sup> Cong., 2<sup>nd</sup> sess., July 1, 2010, [http://banking.senate.gov/public/\\_files/070110\\_Dodd\\_Frank\\_Wall\\_Street\\_Reform\\_comprehensive\\_summary\\_Final.pdf](http://banking.senate.gov/public/_files/070110_Dodd_Frank_Wall_Street_Reform_comprehensive_summary_Final.pdf).

<sup>29</sup> For example, the Office of the Comptroller of the Currency (OCC) asked for comments in November 2011 for alternative frameworks that could be applied to the securities purchased by national banks and federal savings associations. See “Alternatives to the Use of External Credit Ratings in the Regulations of the OCC,” *Federal Register*, November 29, 2011, p. 73527, <http://www.gpo.gov/fdsys/pkg/FR-2011-11-29/html/2011-30428.htm>.

<sup>30</sup> See Mark Pengelly, “OCC Seeking Change to Rating Ban in Dodd-Frank, Reveals Walsh,” *Risk*, November 17, 2011, <http://www.risk.net/risk-magazine/feature/2112927/basel-regulators-wrestling-dodd-frank-clash>.

- public-sector entities (i.e., state, local authority or other government subdivision below the level of a sovereign entity);
- corporate entities (i.e., an entity that does not fall under the previously listed entities or meet the definition of a securitization) and a financial institution that satisfies the definition provided in the December NPR; and
- any financial securities that satisfy the definition of a securitization provided in the December NPR.

The December NPR applies only to a bank holding company or bank with aggregated trading assets and trading liabilities equal to 10% or more of quarter-end total assets, or \$1 billion or more. In other words, the proposed rules do not apply to small banking organizations and are estimated to apply to fewer than 20 of the largest banking organizations.<sup>31</sup> Although the December NPR proposes conceptual approaches for asset risk-weighting for the few large banking organizations with trading books, the final rules arguably may be indicative of the asset risk-weighting approach that will be used to implement Basel III, which may eventually pertain to banks of all sizes.<sup>32</sup> The specific risk weights proposed for seven categories of exposures held in bank trading books are presented in more detail in the **Appendix**.

## Enhanced Capital and Liquidity Standards

This section begins with an overview of the enhanced minimum capital and liquidity requirements in Basel III, followed by a summary of the enhanced requirements mandated by the Dodd-Frank Act. Although the requirements may be consistent, the Dodd-Frank Act may require higher standards than Basel III. Challenges associated with simultaneous implementation of both Basel III and the Dodd-Frank Act in the United States are discussed.

### BCBS Enhancements: Basel III, Pillar I Requirements

Basel III, Pillar I modifies the regulatory capital and liquidity requirements, generally in the direction of requiring more and higher quality capital.<sup>33</sup> Specifically, the regulatory reform package revises the definition of Tier I capital; increases the amount of common tangible equity held as minimum regulatory capital; establishes a capital conservation buffer; introduces a countercyclical capital buffer; introduces a leverage ratio; and introduces two new liquidity ratios—the liquidity coverage ratio and the net stable funding ratio. The quantitative requirements and phase-in schedules for Basel III were approved by the 27-member jurisdictions and 44 central banks and supervisory authorities on September 12, 2010.

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<sup>31</sup> See Donna Borak, “Regulators Unveil Plan to Remove Credit Ratings from Capital Requirements,” *American Banker*, December 8, 2011.

<sup>32</sup> See memorandum written by senior counsel from the American Bankers Association entitled Risk-Based Capital Guidelines: Market Risk; Alternatives to Credit Ratings For Debt and Securitization Positions,” December 9, 2011, at [http://www.aba.com/NR/rdonlyres/DC65CE12-B1C7-11D4-AB4A-00508B95258D/74490/cl\\_RBC\\_CrRate2011Dec.pdf](http://www.aba.com/NR/rdonlyres/DC65CE12-B1C7-11D4-AB4A-00508B95258D/74490/cl_RBC_CrRate2011Dec.pdf).

<sup>33</sup> See Basel Committee on Banking Supervision, *Strengthening the Resilience of the Banking Sector*, December 2009, <http://www.bis.org/publ/bcbs164.pdf>. This document was an expanded and updated version of an earlier document entitled Basel Committee on Banking Supervision, *Enhancements to the Basel II Framework*, July 2009, <http://www.bis.org/publ/bcbs157.pdf>.

## **Stricter Definition of Capital, Higher Requirements**

Under Basel I, two types of capital, core and supplementary capital, count toward meeting the capital adequacy requirements. Core or *Tier 1* capital is made up of mainly common shareholders' equity (issued and fully paid), disclosed reserves, most retained earnings, and perpetual non-cumulative preferred stock. Supplementary or *Tier 2* capital consists of subordinated debt, limited-life preferred stock and loan loss reserves, and goodwill.

Under Basel III, the definition of Tier 1 capital is more narrow. To raise the quality, consistency, and transparency of regulatory capital, the committee determined that Tier 1 capital must consist predominantly of common equity and retained earnings. The financial crisis demonstrated that the resources to cushion against credit losses and write-downs came out of retained earnings, which is a part of a bank's tangible equity base. Hence, the Tier 1 capital definition is now closer to the definition of tangible common equity ratio, which must be above 2% for a bank not to be considered critically undercapitalized.<sup>34</sup> In addition to tangible common equity, the central bank governors added mortgage servicing rights, deferred tax assets, and holdings in other financial institutions to be part of Tier 1. These three assets are considered very liquid and can be sold to offset unexpected losses. These assets, however, should not exceed in aggregate more than 15% of a bank's Tier 1 capital. This requirement limits dilution of the amount of common tangible equity in Tier 1 capital.

To comply with Basel III, banks must meet a minimum common equity capital requirement of 4.5% by January 1, 2015, up from the Basel II level of 2%. On September 12, 2010, the central bank governors approved a capital requirement policy that would increase the total minimum capital requirement (sum of Tier 1 and Tier 2) to 8% by January 1, 2015, three quarters of which must be Tier 1 capital. By 2019, the total minimum total capital requirement will increase from 8.0% to 10.5% at the rate of 0.0625% per year beginning in January 1, 2016.

## **Capital Conservation Buffer**

The BCBS established a capital conservation buffer to ensure banks build capital buffers outside periods of financial stress that can be drawn down should their assets deteriorate, thus improving their resiliency to unanticipated losses. The minimum amount of the conservation buffer is 2.5% of the banks' risk-weighted assets. The capital held in this buffer must be Tier 1 capital. Building this buffer to meet the requirement may occur by reducing discretionary distribution of earnings, dividend payments, and salary bonus payments. According to Basel III, regulators should forbid banks from distributing capital when banks have depleted their capital buffers.

On September 12, 2010, the central bank governors agreed to set the capital conservation buffer at 2.5% of risk-weighted assets to cushion against future periods of stress. The 2.5% capital conservation buffer must consist mostly of common tangible equity. The conservation buffer would increase in increments of 0.625% annually. On January 1, 2016, the conservation buffer must be 0.625 and then rise to 2.5% by January 1, 2019.

## **Optional Countercyclical Capital Buffer**

Procyclicality, as discussed earlier, refers to the disproportionate expansion of lending when economic activity is expanding as well as the disproportionate contraction of lending when economic activity is contracting. On September 12, 2010, the central bank governors approved a

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<sup>34</sup> See the definition of "Risk-Based Capital Groups" in the glossary of any FDIC Quarterly Banking Report, <http://www2.fdic.gov/qbp/qbpSelect.asp?menuItem=QBP>. The tangible common equity ratio is defined as the ratio of a bank's common equity divided by its tangible assets.

policy on countercyclical buffers that essentially left it up to the national regulatory authorities to determine when lending growth poses a risk to the stability of the financial system. The BCBS agreed that the countercyclical buffer should be between 0 and 2.5% of total risk-weighted assets and consist of common equity or other fully loss absorbing capital. The buffer would grow during economic expansions and decrease during contractions. The BCBS set no deadline for meeting this requirement given that national governments can decide whether to implement and subsequently determine the buffer's size. Nevertheless, the Basel III schedule does suggest adding capital for those governments requiring the countercyclical buffer at the rate of 0.625% of risk-weighted assets per year between January 1, 2016, and December 31, 2018, which achieves a buffer of 2.5% by January 1, 2019. If the countercyclical capital buffer is implemented in full, the minimum total capital requirement for U.S. banks would be 13.0% of risk-weighted assets.

In addition to the capital conservation buffer in Basel III, the committee introduced a series of measures to dampen any excess cyclicity of the minimum capital requirement. The capital requirement would be adjusted over the business cycle so that more capital is required in economic expansions than in economic contractions.<sup>35</sup>

## **Leverage Ratio**

The leverage ratio will be defined as gross capital divided by the average total consolidated on-balance sheet assets. Unlike the Tier 1 and Tier 2 ratios, the leverage ratio does not depend upon risk weights. The logic behind this ratio is to illuminate financial risks that could be assigned lower weights yet still translate into substantial losses. For example, large complex financial institutions sponsored financial conduits that allowed mortgages to be funded off the balance sheets of supervised banks. In other words, the conduits could issue debt obligations (i.e., short-term commercial paper) to investors without being subject to traditional safety and soundness capital requirements given that the mortgages were not held in bank portfolios. Instead of being held in portfolio, the bank guaranteed payment if the conduit became illiquid. The guarantee, however, would be assigned a much lower weight than if the assets were held in portfolio, yet the bank was still exposed to off-balance sheet financial risks. The leverage ratio assumes all assets (e.g., loans held in portfolio, asset-backed securities, credit-risk guarantees) have identical levels of credit risk. Banks would be required to maintain a leverage ratio of 3%, which would serve as a capital backstop and ensure that capital does not fall below a minimum threshold.<sup>36</sup>

On July 26, 2010, the phased-in arrangement was announced by the BCBS. However, the BCBS did not approve a specific leverage ratio. During the observation period, the committee plans to put in place rigorous reporting processes to monitor the ratio. Based on the results, adjustment will be made in the first half of 2017 and the minimum leverage ratio will be determined and applied on January 1, 2018.

## **Two New Liquidity Risk Measures: Liquidity Coverage Ratio, Net Stable Funding Ratio**

The ability to sell an asset immediately for its original face or book value without incurring losses or significant transaction fees is one definition of liquidity.<sup>37</sup> Again, bank portfolios generally

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<sup>35</sup> The committee also supports the International Accounting Standard Board plans to issue a set of high level guiding principles that would promote an expected loss approach, which is also less procyclical than the current incurred loss approach. See <http://www.bis.org/publ/bcbs164.pdf>, p. 8.

<sup>36</sup> For more discussion of the leverage ratio, see <http://www.bis.org/publ/bcbs165/splr.pdf>.

<sup>37</sup> Economists have various definitions of liquidity rather than a single consensus definition.

consist of illiquid assets (longer-term loans) that are funded by shorter-term loans that must be renewed continuously until the longer-term customer loans are fully repaid. Episodes of uncertainty can cause increases in short-term rates relative to long-term rates, which can translate into distress for financial institutions. For example, institutions holding large amounts of illiquid assets may suddenly find themselves competing to borrow the liquid assets of other institutions, even for a short period of time, which drives up short-term rates. A bank may want to liquidate its holdings of asset-backed securities, but if other banks simultaneously make similar financial decisions, the market for such securities may consist of many sellers but no willing buyers. In both cases, even if banks have sufficient capital reserves and are still considered solvent, the scarcity of liquid funds would result in problems repaying short-term funding obligations. Hence, in addition to having sufficient capital to buffer against loan defaults (credit risk), banks need sufficient amounts of liquidity to buffer against unanticipated reversals in cash flow that could result in asset “fire sales,” which occurred in 2007 and into 2008.<sup>38</sup> The BCBS, therefore, introduced two new liquidity risk measures to improve resilience to liquidity stress.<sup>39</sup>

The 30-day liquidity coverage ratio is designed to promote short-term resilience to potential liquidity disruptions. The numerator of the liquidity coverage ratio would consist of a bank’s stock of high-quality liquid assets, which would consist mostly of government securities and cash, and the denominator would be a measure of its net cash outflows over a 30-day time period. On September 12, 2010, the central bank governors introduced the liquidity coverage ratio requirement. An observation period began on January 1, 2011, and is set to end in December 2014. During the observation period, the committee plans to monitor the ratio and review the effect on financial markets, credit extensions and economic growth. Based on the results, the minimum liquidity coverage ratio is suppose to be determined and made effective on January 1, 2015.

The Net Stable Funding Ratio (NSFR) would encourage banks to rely upon more medium- and longer-term funding of its longer-term loans as opposed to relying primarily upon short-term funding. The numerator of the NSFR would be computed using banks’ “available stable funding sources (ASF)” in the numerator divided by assets that “require stable funding (RSF)” in the denominator. Banks fund assets with liabilities and capital, thus the ASF would be calculated as the sum of its liabilities and capital using ASF weights. Bank capital would receive a 100% ASF weight, consumer deposits liabilities would receive 70% ASF weight, and shorter-term liabilities would receive lower or 0% ASF weights. In other words, available stable funding sources with the longer maturities would be assigned higher weights than those with shorter maturities. Bank assets require funding, thus the RSF would be calculated as the sum its assets using RSF weights. Cash assets do not require funding and would receive a 0% RSF weight. Loans that mature in less than a year require funding and would receive an 85% RSF; loans that take a year or longer to mature would receive a 100% RSF. In other words, assets that require stable funding receive higher weights the longer they must be funded. The NSFR cannot be lower than 100%. Hence, a bank must either increase its capital reserves if it chooses to spread the yield curve with shorter-term liabilities or diversify the maturities of its liabilities to maintain a NSFR of 100%. The NSFR will not be introduced as a minimum requirement until 2018.

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<sup>38</sup> See David Greenlaw, Jan Hatzius, and Anil K. Kashyap, *Leveraged Losses: Lessons from the Mortgage Market Meltdown*, Initiative on Global Markets, The University of Chicago Graduate School of Business, Proceedings of the U.S. Monetary Policy Forum 2008, Chicago, IL, 2008, [http://research.chicagobooth.edu/igm/docs/USMPF\\_FINAL\\_Print.pdf](http://research.chicagobooth.edu/igm/docs/USMPF_FINAL_Print.pdf).

<sup>39</sup> This regulatory action may also be considered *macroprudential* in nature given that it would act to alleviate funding pressures that could affect the entire financial system and result in a systemic risk event. See CRS Report R40417, *Macroprudential Oversight: Monitoring Systemic Risk in the Financial System*, by Darryl E. Getter.

**Table 1** summarizes the Basel III minimum capital requirements and phase-in arrangements. In 2019, the minimum Tier 1 capital ratio will be 6.0%, and the minimum total capital plus capital conservation buffer increase to 10.5%. If the maximum countercyclical capital buffer is added in full, the minimum total capital requirement would be 13.0% of risk-weighted assets.

**Table 1. Basel III Pillar I Requirements and Phase-in Arrangements**

(all dates as of January 1; in percentages)

Pillar I Requirements	Years								
	2011	2012	2013	2014	2015	2016	2017	2018	2019
Minimum Common Equity Capital Ratio			3.5	4.0	4.5	4.5	4.5	4.5	4.5
Minimum Tier I Capital			4.5	5.5	6.0	6.0	6.0	6.0	6.0
Minimum Total (Tier I + Tier 2) Capital (row 3)			8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Conservation Buffer (row 4)						.0625	1.25	1.875	2.5
<b>Minimum Total Capital + Conservation Buffer (sum of rows 3 &amp; 4)</b>			<b>8.0</b>	<b>8.0</b>	<b>8.0</b>	<b>8.625</b>	<b>9.25</b>	<b>9.875</b>	<b>10.5</b>
Optional: Minimum Countercyclical Buffer (row 6)						.0625	1.25	1.875	2.5
<b>Minimum Total Capital + Conservation + Countercyclical Buffers (sum of rows 3, 4, &amp; 6)</b>			<b>8.0</b>	<b>8.0</b>	<b>8.0</b>	<b>8.6875</b>	<b>10.5</b>	<b>11.75</b>	<b>13.0</b>
Leverage Ratio	Mon.							Req.	
Liquidity Coverage Ratio	Mon.				Req.				
Net Stable Funding Ratio		Mon.						Req.	

**Source:** Basel Committee on Banking Supervision, Group of Governors and Heads of supervision announces higher global minimum Standard, September 12, 2010, p. 7.

**Notes:** Monitor “Mon.” = observation period begins, Require “Req.” = introduction of minimum standard. (Ref. No: 35/2010)

## Capital and Liquidity Enhancements Under the Dodd-Frank Act

The Dodd-Frank Act also calls for higher capital and liquidity requirements for banks, which may be stricter than those called for in Basel III. The statutory requirements are summarized below. Federal banking regulators have not yet announced a proposed rule for the adoption of Basel III.

### Section 171: The Collins Amendment

The Collins Amendment of the Dodd-Frank Act provides for the development of capital requirements for all insured depository institutions, depository institution holding companies, and



systemically important non-bank financial companies.<sup>40</sup> Small bank holding companies with less than \$500 million in assets are exempt from the Collins Amendment. In addition, the Collins Amendment would not apply to foreign parents of bank and thrift holding companies. The Federal Home Loan Banks would also be exempt from these requirements.

Section 171(b) of the Collins Amendment requires the appropriate federal banking agencies to establish minimum-leverage capital and risk-based capital requirements that apply to intermediate U.S. bank holding companies that are subsidiaries of a non-U.S. bank. The minimum requirements cannot be quantitatively lower than the generally applicable leverage capital and risk-based capital requirements that were in effect when the Dodd-Frank Act was passed. The “generally applicable leverage capital requirements” refers to the minimum ratio of (Tier 1) capital in the numerator to average total assets in the denominator. The “generally applicable risk-based capital requirements” refers to the ratio of regulatory capital components in the numerator of those capital requirements to the risk-weighted assets in the denominator. Hence, these minimum requirements are floors, which means that regulators may set higher but never lower ratio requirements than Basel I and Basel II. On June 28, 2011, the federal banking regulators announced the final rule establishing the two floors that would go into effect on July 28, 2011.<sup>41</sup>

The Collins Amendment also excludes a class of securities from the definition of eligible capital. Trust preferred securities, which are directly issued preferred stocks with the tax advantages of debt, along with the preferred stock that the U.S. Treasury purchased under the Troubled Asset Relief Program (TARP), serve as examples of securities that issuers would have an incentive to redeem at some future date.<sup>42</sup> Basel III, however, requires that only perpetual securities, such as common stock that would have no maturity date or incentive to redeem, will be counted as (Tier 1) capital. The Collins Amendment applies this provision to large bank holding companies, but exempts from this requirement small institutions with assets of less than \$500 million that are not engaged in significant non-banking activities or off-balance sheet activities. In addition, covered institutions have three years from the date of enactment of the Dodd-Frank Act to comply.<sup>43</sup>

## **Other Requirements from the Dodd-Frank Act and Implementation Issues**

Section 616 of the Dodd-Frank Act requires a countercyclical buffer, similar to the optional countercyclical capital buffer proposed under Basel III. In addition, Section 165 has a leverage requirement; however, this requirement differs from the leverage ratio requirement as proposed under Basel III. The term leverage ratio under Basel III refers to an unweighted capital-asset ratio; the Dodd-Frank Act uses the term to refer to a debt-to-equity ratio. The Dodd-Frank Act requires that bank holding companies and nonbank financial companies supervised by the Federal Reserve maintain a debt-to-equity ratio of no more than 15-to-1. Hence, the Dodd-Frank Act mandates capital requirements for U.S. banks that are likely to be higher than those required under Basel III.

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<sup>40</sup> For more information on the regulation of systemically important firms, see CRS Report R42083, *Financial Stability Oversight Council: A Framework to Mitigate Systemic Risk*, by Edward V. Murphy.

<sup>41</sup> See <http://www.gpo.gov/fdsys/pkg/FR-2011-06-28/pdf/2011-15669.pdf>.

<sup>42</sup> For a discussion of trust preferred securities, see [http://www.philadelphiafed.org/bank-resources/publications/src-insights/2009/first-quarter/q1si4\\_09.cfm](http://www.philadelphiafed.org/bank-resources/publications/src-insights/2009/first-quarter/q1si4_09.cfm). For information about the securities purchased by the U.S. Treasury under TARP, see CRS Report R41427, *Troubled Asset Relief Program (TARP): Implementation and Status*, by Baird Webel.

<sup>43</sup> Basel III starts the phasing out of non-perpetual securities in 2013, whereas this period for banks in the United States began when the Dodd-Frank Act became public law, July 21, 2010, which accelerates the compliance schedule.

On November 4, 2011, Federal Reserve Governor Daniel K. Tarullo indicated that the banking regulatory agencies were making recommendations for changes to the liquidity coverage ratio and mentioned other liquidity alternatives.<sup>44</sup> The liquidity coverage ratio has come under scrutiny because, although it may reduce potential episodes of liquidity stress for banks, it could arguably generate widespread unintended consequences.<sup>45</sup> Banks would either have to substitute away from originating higher yielding, illiquid loans and hold more lower yielding, liquid assets. The profitability of lending may be impaired given that banks would need to fund fewer loans to satisfy the liquidity requirements or fund with longer-term borrowings. In addition, if the banking system held enough Treasuries to satisfy the liquidity coverage ratio requirements, other financial and non-financial entities may experience a shortage of liquid securities. Moreover, the entire banking system would be more susceptible to a systemic risk crisis if it had a large concentration of liquid (Treasury) holdings that suddenly experienced an increase in credit risk.<sup>46</sup> Hence, the liquidity ratios will have longer time horizons prior to implementation while bank regulatory officials as well as the BCBS assess the impact of these requirements on the credit and financial markets and make further modifications.

## Conclusion

Bank lending declined during the recent 2007-2009 recession for several reasons. Numerous U.S. banks found themselves undercapitalized as a result of a sudden surge of loan defaults that occurred over this period. Undercapitalized banks are unable to originate new loans until their capital reserves are restored. U.S. banks that are sufficiently capitalized may have curtailed some lending activity given that higher loan defaults and unemployment rates translate into fewer borrowers able to qualify for loans, and even some qualified borrowers may face uncertain future earnings prospects. Bank lending decisions and strategies may also ensue at a slower pace as a result of the challenges associated with the simultaneous implementation of Basel III and the Dodd-Frank Act. Bankers arguably would want to know what new capital requirements they face before making longer-term commitments to their asset portfolios.

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<sup>44</sup> See Governor Daniel K. Tarullo, *The International Agenda for Financial Regulation*, Board of Governors of the Federal Reserve System, Speech Delivered at the American Bar Association Banking Law Committee Fall Meeting, Washington, DC, November 4, 2011, <http://www.federalreserve.gov/newsevents/speech/tarullo20111104a.htm>.

<sup>45</sup> See <http://www.bis.org/publ/bcbs165/spl.pdf>.

<sup>46</sup> Systemic risk may be defined as risk that cannot be avoided through diversification. See CRS Report R40417, *Macroprudential Oversight: Monitoring Systemic Risk in the Financial System*, by Darryl E. Getter. On August 5, 2011, the U.S. debt was downgraded by a major credit rating agency for the first time in history. See CRS Report R41955, *Standard & Poor's Downgrade of U.S. Government Long-Term Debt*, by Mark Jickling.

## Appendix. Specific Risk-Weight Descriptions

The specific risk weights proposed for seven categories of exposures held in bank trading books are presented in more detail below.

### Sovereign Entities

Currently, the risk-weighting factors for banks that hold sovereign debt positions are based upon whether the sovereign issuer is a member of the Organisation for Economic Co-operations and Development (OECD). Covered debt positions with sovereign entity exposures where the entities are OECD members are assigned a zero percent specific risk-weighting factor, and exposures to non-OECD sovereign entities get an 8.0% specific risk-weighting factor. The December NPR proposed allowing a bank to determine its specific risk-weighting factors for sovereign debt positions based on the OECD's Country Risk Classifications (CRCs), which are published by the OECD and used for sovereign positions, company-specific financial information, and other items.<sup>47</sup> The December NPR noted that "The OECD is not subject to the sorts of conflicts of interest that affected NRSROs because the OECD is not a commercial entity that produces credit assessments for fee-paying clients, nor does it provide the sort of evaluative and analytical services as credit rating agencies."<sup>48</sup>

The December NPR also proposes applying a specific risk-weighting factor of 12.0% to sovereign debt positions if the sovereign has defaulted on any exposure during the previous five years. In this context, a default by a sovereign would be defined as noncompliance by a sovereign entity with its external debt service obligations or the inability or unwillingness of a sovereign entity to service an existing obligation according to its terms, as manifested in its inability to make complete and timely payments on such obligations as principal and interest, and arrearages.

### Certain Multilateral Development Banks, Supranational Entities

Bank trading book exposures to certain supranational entities and multilateral development banks (MDBs)<sup>49</sup> are currently assigned specific risk-weighting factors that can range between 0.25% and 1.6%, depending on the remaining maturity. The December NPR proposed to apply a zero percent specific risk-weighting factor to MDB exposure. The regulators argued that the more lenient treatment is warranted given general MDB attributes, which include high-credit quality as well as having shareholder bases primarily composed of highly creditworthy sovereign entities.

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<sup>47</sup> Regulators considered a host of financial and market-based alternatives to the use of credit ratings as either replacements or supplements to the CRCs, including credit default swap (CDS) spreads, and bond spreads. These market-based indicators arguably could be more forward looking than metrics that are based solely on historical information. See "Risk-Based Capital Guidelines: Market Risk; Alternatives to Credit Ratings for Debt and Securitization Positions."

<sup>48</sup> The CRC aspect of the proposal initially received a significant amount of criticism because the OECD represents its member governments. Critics argued that there is a potential conflict of interest in the use of the OECD's CRC ratings, which the NPR proposes to use in the risk weighting of sovereign debt. See Matt Cameron, "Basel 2.5: US Ratings Workaround too Punitive, Banks Complain," *Risk*, January 12, 2012, <http://www.risk.net/risk-magazine/news/2135994/basel-ratings-workaround-punitive-banks-complain>.

<sup>49</sup> MDBs include the following: the International Bank for Reconstruction and Development, the Multilateral Investment Guarantee Agency, the International Finance Corporation, the Inter-American Development Bank, the Asian Development Bank, the African Development Bank, the European Bank for Reconstruction and Development, the European Investment Bank, the European Investment Fund, the Nordic Investment Bank, the Caribbean Development Bank, the Islamic Development Bank, the Council of Europe Development Bank, and any other multilateral lending institution or regional development bank in which the U.S. government is either a shareholder or contributing member.

Additionally, as is the case under Basel II, the December NPR would assign a zero-specific risk weighting to bank exposures to specific supranational entities, such as the Bank for International Settlements, the European Central Bank, the European Commission, and the International Monetary Fund.

## **Government Sponsored Entities**

Bank exposures to government-sponsored entities (GSEs) are currently assigned risk-weights between 0.25% and 1.6%, depending on the maturity of any debt issuances. The December NPR does not alter this approach. Bank exposures to GSE equity, however, would be assigned a risk-weight of 8.0%.

## **Depository Institutions, Foreign Banks, and Credit Unions**

Bank exposures to other banks incorporated in OECD countries are currently assigned risk-weighting factors ranging between 0.25% and 1.6% based on the maturity of the debt. By contrast, the risk weighting of debt exposures to banks incorporated in non-OECD countries are determined through a more complex methodology that includes credit ratings. The December NPR would eliminate the disparate treatment of exposures to OECD banks and non-OECD banks. Specific risk-weighting factors would be assigned based upon the CRC of a bank's sovereign nation of incorporation and the maturity of the exposure. Exposures to banks based in the highest tier of CRC rated countries would be assigned a specific risk-weighting factor between 0.25% and 1.6%, depending on the maturity. Banks incorporated in the four lowest tier CRC rated countries would receive a specific risk-weighting factor of 8.0% irrespective of maturity.

## **Exposure to Public Sector Entity Debt Positions**

Risk-weights of public-sector entities (PSEs) currently range between 0.25% and 1.6%, based on maturity. For revenue bonds, assigned risk-weights depend upon an array of factors, including credit ratings. The December NPR would assign risk-weights based on the CRC of the sovereign nation in which the PSE is located with some variability determined by the exposure's maturity and whether the exposure is a general or revenue obligation.<sup>50</sup> The lowest risk weighting would be between 0.25% and 1.6% for general obligations exposures to PSEs in relatively lower CRC rated countries. The highest risk weight of 8% would be given to exposures to PSE general and revenue obligations in countries with middle tier CRC ratings.

## **Corporate Debt Positions**

Bank-held corporate debt is currently risk-weighted based on the issuer's function, credit rating, and remaining time to maturity of the debt. The December NPR distinguishes between financial and nonfinancial corporations as well as between publicly traded and private corporations. For financial and private company debt positions, bank exposures would be assigned a risk-weight of 8.0%. For debt positions of a publicly traded nonfinancial company, a bank exposure would be assigned a risk-weighting factor of either 8.0% or 12.0%, based on the debt issuer's profitability, stock price volatility, and leverage. The December NPR also solicited comments for alternatives (e.g., bond spreads) that could be used to assign minimum capital requirements for holding corporate debt positions.

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<sup>50</sup> For a description of general and revenue obligations, see CRS Report RL30638, *Tax-Exempt Bonds: A Description of State and Local Government Debt*, by Steven Maguire.

## Securitization Holdings

If a bank does not opt to model individual asset risks, it must still determine a risk capital factor for each securitization position, using a standardized methodology. Banks must multiply the absolute value of the current market value of the securitization position by a specified risk-weighting factor that ranges between zero and 8.0%, depending on the credit ratings and remaining time to maturity. The December NPR proposed a simplified supervisory formulaic approach (SSFA) to risk-weight bank securitization positions.<sup>51</sup> The SSFA would be designed to assign higher capital requirements to the more subordinated, risky securitization tranches that typically absorb losses first; lower capital requirements would be assigned to safer, senior tranches. The December NPR included formulas that would allow banks to determine the riskiness of their securitizations based upon the hierarchy of tranches.

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<sup>51</sup> The SSFA formula is based upon the supervisory formula approach included in the domestic bank regulators' Basel II rules.